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AUTHOR Gati, Itamar; Givon, Michal
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ABSTRACT

One of the sources for the observed differences between the occupational choices and preferences of women and men may be the way in which they perceive the considerations or aspects which are taken into account in the process of career decision making. That is, the different meanings men and women attribute to the various aspects may give rise to differences in their career preferences. An examination was made of the possible differences in the meanings attributed to career-related aspects by women and men. Monitored dialogues of 1,252 deliberating women and 751 deliberating men who used "MESHIV," a computer-assisted career guidance system, were analyzed. Subjects used MESHIV in one of eight locations in Israel (public or private career counseling centers) out of their own initiative as part of their career decision making process, or were introduced to it by their career counselor. During these dialogues the users reported their preferences in 43 considerations or aspects relevant for career decision making (e.g., indoor-outdoor, teamwork, prestige). A measure of similarity was developed and then computed in the pattern of preferences for each pair of aspects. Using cluster analyses of the preferences, the structure of aspects of men and women were obtained and compared. The obtained structures were found to be highly similar, which was interpreted as indicating that deliberating women and men attribute, in general, similar meaning to the aspects. These findings support, generally, the assumption which underlies computer-assisted career guidance systems, that the aspects have a general, agreed-upon meaning. Yet, a few but interpretable differences also emerged. (ABL)

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Gender Differences in the Structure of Career-Related Aspects

Itamar Gati and Michal Givon

The Hebrew University of Jerusalem

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Mailing Address:

Prof. Itamar Gati
Dept. of Psychology
The Hebrew University of Jerusalem
Jerusalem 91905
Israel

Fax: 972-2322545

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Gender Differences in the Structure of Career-Related Aspects

Abstract

In order to examine possible differences in the meanings attributed to career-related aspects by women and men, we analyzed the monitored dialogues of 2000 young adults with a computer-assisted career guidance system. During these dialogues, the users reported their preferences in 43 considerations or aspects relevant for career decision making (e.g., indoor-outdoor, teamwork, prestige). We developed and then computed a measure of similarity in the pattern of preferences for each pair of aspects. Using cluster analyses of the preferences, we obtained and compared the structure of aspects of women and men. The obtained structures were found to be highly similar, which was interpreted as indicating that deliberating women and men attribute, in general, similar meaning to the aspects. Yet, a few but interpretable differences also emerged.

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Gender Differences in the Structure of Career-Related Aspects

One of the sources for the observed differences between the occupational choices and preferences of women and men (e.g., Betz & Fitzgerald, 1987) may be the way in which they perceive the considerations or aspects which are taken into account in the process of career decision making. That is, the different meanings men and women attribute to the various aspects may give rise to differences in their career preferences. For example, do they attribute to supervision - power, or do they attribute to it being responsible as in the case of being the head of a group of equals (e.g., the head of cooperative team)?

One way to study the meanings attributed to aspects considered in the career decision making process is to derive and analyze their structure (e.g., Benyamini & Gati, 1987; Garty, 1989). Similar interpretations of the aspects (i.e., attributing identical meanings to them) are expected to yield similar structures, while different interpretations are expected to result in different structures. Thus, if, for example, supervision is interpreted as involving authoritativeness both by women and men, then supervision should be located relatively close to authoritativeness in both structures. However, if supervision is perceived as involving responsibility by men but not by women then supervision and responsibility should be located relatively close in the men's structure but not in the women's. Hence, a comparison between the perceived structure of aspects of men and women enables to identify differences in the meanings attributed to the aspects, if such differences exist.

The structure of aspects can be studied by examining the occupational preferences of individuals. If two aspects obtain similar preference profiles based on many individuals' preferences, then those aspects are probably perceived as more similar than other aspects, which receive different preference profiles (Gidron & Gati, 1992). Thus, if all individuals who prefer a high degree of supervision also prefer a high degree of authoritativeness but desire a low degree of teamwork, then the first two aspects are assumed to be perceived as more similar than supervision and teamwork.

Computer-assisted career information and guidance systems are used more and more to elicit career preferences and facilitate the career decision making of individuals. One of the basic assumptions underlying these systems is that there are no systematic differences in the way individuals perceive the aspects and the meanings they attribute to them. This assumption can be tested directly by comparing the structure of aspects derived from preferences of women and men elicited during a dialogue with a computer-assisted career guidance system.

A compatibility between the obtained structures of aspects of men and women will suggest that indeed there is a general agreement regarding the meaning of the aspects, which is independent of gender. Differences between the structures, if obtained, will indicate that men and women perceive the career-related aspects differently. Such a difference may then affect the occupational choices of men and women.

Method

Participants

We analyzed the occupational preferences of 1252 deliberating women and 751 deliberating men who used "MESHIV" - a computer-assisted career decision making system. (The theoretical rationale of MESHIV is discussed in Gati, 1986). 32% were 18-20 years old, 39% 21-22, 16% 23-24, and 13% 25-30 and above. 86% completed 12 years of schooling, 8% completed 13-14 years, and 6% had 15 or more years of education.

Procedure

The participants used MESHIV in one out of eight locations in Israel (public or private career counseling centers) out of their own initiative as part of their career decision making process, or were introduced to it by their career counselor (and used the system inbetween counseling sessions). One of the major purposes of the dialogue is to identify a limited sized set of career options which are compatible with the individual's preferences. Hence, during the dialogue with MESHIV, the users are asked to report their preferences in the various aspects. The users' monitored dialogues, which included their preferences as well as information regarding their age, sex, and years of education (but not personal identification), served as the data.

For each of the first 13 aspects included in MESHIV, labelled "simple aspects", five ordered variations or levels are presented (e.g., for the aspect of the "degree of variety" - "little variety", "below average variety", "average variety", "above average variety", "high variety"). With respect to each of the simple aspects the user is asked to indicate his or her preferences: (a) first, the most preferred variation or level in that aspect, labelled the optimal

level (e.g., "above average variety"), and then (b) additional levels he or she is willing to consider (e.g., in addition to "above average variety", the individual can report his or her willingness to consider occupational alternatives characterized by "average variety" and "high degree of variety" as well). The other levels (i.e., "below average variety" and "low variety") are considered unacceptable. In addition to the 13 simple aspects included in MESHIV, there are also 30 "complex aspects" which belong to four major categories (relationship with people, object of work, abilities and aptitudes, and fields of interest). For example, "teamwork" is one instance out of many types of relationships with people. For each of these complex aspects, the user is requested to report his or her preferences on a different scale: "essential", "desirable", "indifferent", "undesirable", "unacceptable".

Results

Deriving the proximity matrices. We developed a measure of the similarity between the pattern of preferences for any pair of aspects (following the rationale proposed by Gati, 1985). We then computed the average of this measure across all women, for each pair of aspects, and then repeated the procedure for men. This procedure yielded two 43 X 43 proximity matrices which summarize the patterns of preferences (one for women and one for men) and provide the basis for the structure of aspects.

Multivariate analyses. To enable a global comparison of the structure of aspects, the two 43 X 43 proximity matrices were subjected to an ADDTREE analysis (a clustering procedure, Sattath & Tversky, 1976). The obtained clusters are presented in Figures 1 and 2. A comparison of the two figures reveal a relatively high

similarity between the obtained structures. The specific similar clusters which emerged in both structures are listed in Table 1.

Insert Figures 1 and 2, and Table 1 here

Nevertheless, a few differences also emerged. For instance, the women's pattern of preferences for Verbal Ability was similar to their patterns of preferences for Guidance/Teaching, Counseling, and General Culture. Yet, for men, Verbal Ability was relatively near only Counseling, whereas Guidance/Teaching and General Culture constituted a separate cluster. Note also that the cluster which includes Verbal Ability is relatively near to the cluster of business management for men, reflecting their perception of the importance of using verbal ability in personal contact in the business context (e.g., Negotiation, Supervision, Business).

Another difference concerns Numerical Ability. The pattern of preference for using Numerical Ability was not related to any particular cluster for men, indicating that numerical ability can be related to many other aspects (e.g., Business, Teaching). Yet, for women, the pattern of preferences for Numerical Ability is similar to their preferences for Technical Ability, Technology, and Science. This indicates that women attribute numerical ability mainly to the "hard sciences" whereas men relate numerical ability to broader fields. Additional differences are highlighted in the figures.

Discussion

The relatively high similarity between the obtained structures of deliberating young adult men and women may be interpreted as indicating that the various aspects are usually perceived in a similar

way. These findings support, at least generally, the assumption which underlies computer-assisted career guidance systems, that the aspects have a general, agreed-upon meaning.

Yet the differences that exist, while relatively few, are of interest. They indicate that there are differences in the way particular aspects are perceived. This implies that career counselors should be aware of possible individual differences regarding the attribution of meanings to considerations or aspects, because systematic differences may exist not only between men and women but also among counselees from different cultural and social backgrounds. Future studies may further reveal whether the group differences in the preferences in each aspect are related to systematic differences in the meanings attributed to the various aspects.

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Table 1. The List of Clusters of Aspects which Were Similar for Both Women and Men[1]

(a) Length of training, Analytical Ability

(b) Professional Advancement, Income, Variety, Social Status, Independence

(c) Negotiation, Business, Management/Supervision, Organizational Ability, Organization

(d) Arts & Entertainment, Artistic ability, Manual dexterity

(e) Indoor/Outdoor, Working Hours, Amount of Travel, Plants/Animals, Outdoor

(f) Guidance/Teaching, General Culture

(g) Tools & Instruments, Materials

(h) Flexibility in Working Hours

(i) Abstract ideas

(j) Counseling/Consultation, Verbal Ability

(k) Technical, Technology, Science

(l) Authoritativeness, Responsibility

(m) Mental help, Community Service, Service

(n) Teamwork

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[1] The clusters are based on similarity in the pattern of preferences. For example, cluster (a) reflects that those who prefer longer training also prefer using analytical ability in their future occupation.

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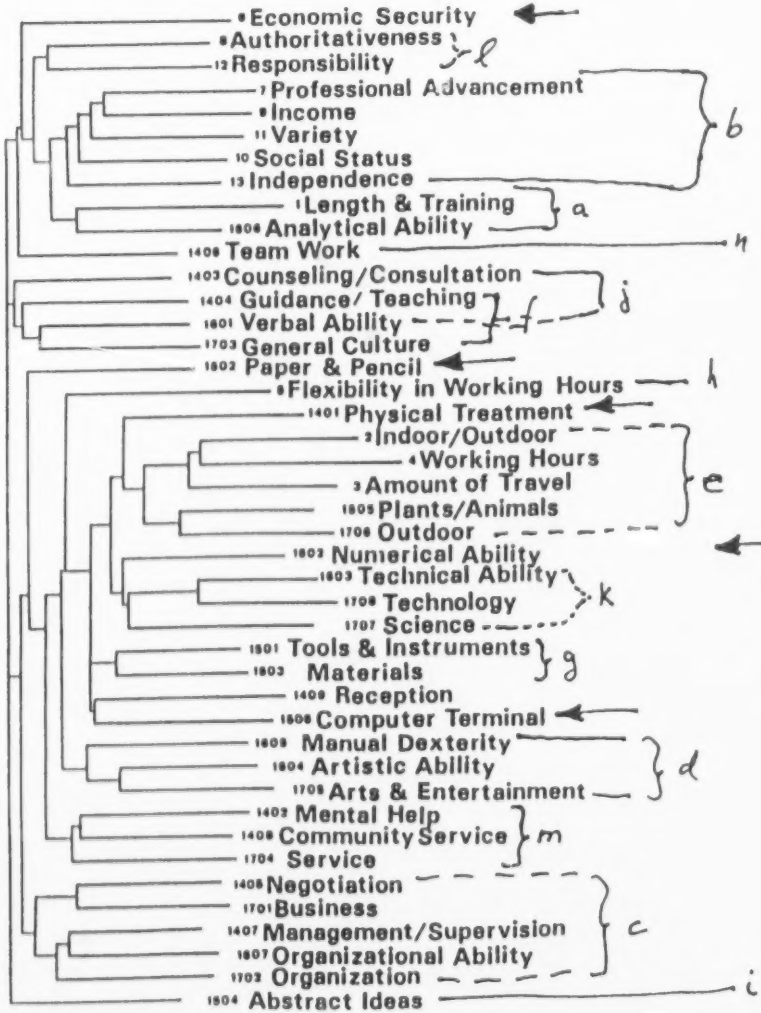
6 Economic Security
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12 Responsibility
7 Professional Advancement
9 Income
11 Variety
10 Social Status
13 Independence
1 Length & Training
1806 Analytical Ability
1408 Team Work
1403 Counseling/Consultation
1404 Guidance/ Teaching
1801 Verbal Ability
1703 General Culture
1802 Paper & Pencil
5 Flexibility in Working Hours
1401 Physical Treatment
2 Indoor/Outdoor
4 Working Hours
3 Amount of Travel
1805 Plants/Animals
1706 Outdoor
1802 Numerical Ability
1803 Technical Ability
1708 Technology
1707 Science
1801 Tools & Instruments
1803 Materials
1409 Reception
1806 Computer Terminal
1805 Manual Dexterity
1804 Artistic Ability
1705 Arts & Entertainment
1402 Mental Help
1406 Community Service
1704 Service
1405 Negotiation
1701 Business
1407 Management/Supervision
1807 Organizational Ability
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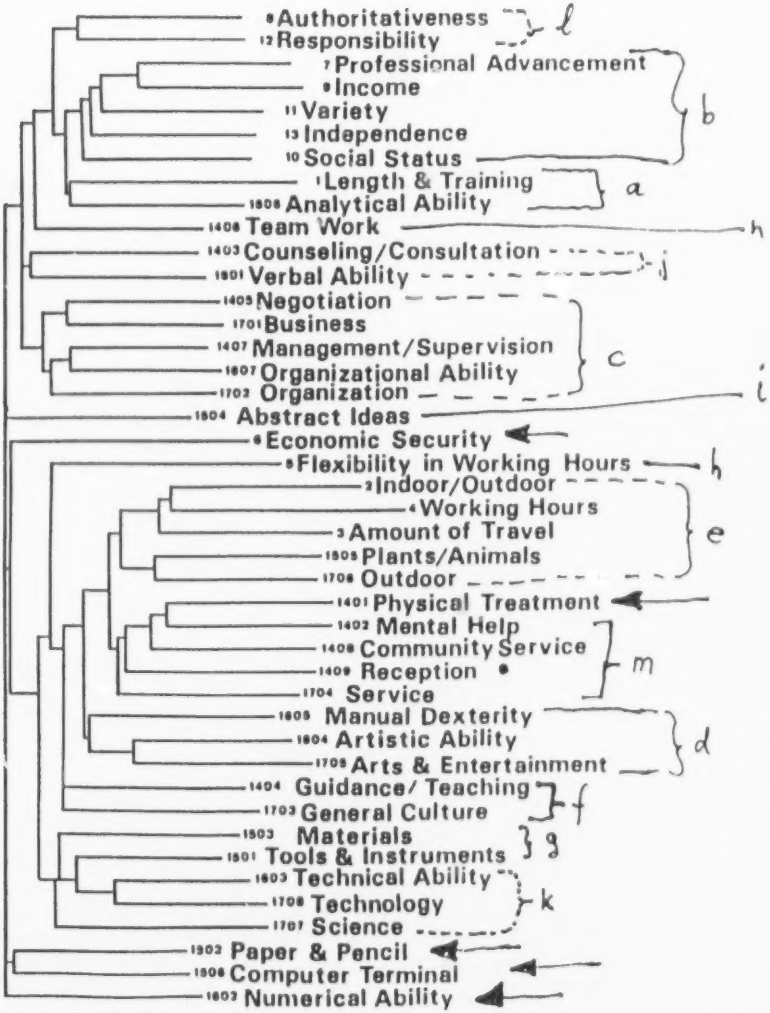
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